

JET Meeting Minutes

June 21, 2016

Participants

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Action Items

1. Grant Miller will send the JET a summary of the 2016 JET accomplishments and a preliminary list of potential JET topics for 2017.

Proceedings

This meeting of the JET was chaired by Vince Dattoria of DOE/SC and Kevin Thompson of the NSF

Update/status on Internet2's Re-architecture Plans: John Moore

Internet2 plans include:

- Aligning their network services portfolio with the evolving community needs
- Developing deeper partnerships (with vendors) where it is mutually beneficial
- Providing leadership in the network services landscape

The goals of the 2016 Internet2 re-architecture are:

- To modify the core network to remove dependency on OpenFlow in the core, to build a rock solid production, single vendor (Juniper), MPLS-based core while maintaining the existing customer service view.
- Providing a more agile platform in an overlay supporting SDN and OpenFlow
- Simplifying the architecture and increasing visibility for planning purposes
- Positioning Internet2 to be more innovative and responsive to community needs looking forward to 2018-2023

Current status of the changes is that several cities have hardware swaps, and many more are planned. StarLight swap is currently in progress. A detailed design, code and test is in process. Overlay deployments have been implemented in New York and Salt Lake City. Installations in Seattle, Los Angeles, Kansas City, Houston, Cleveland and Atlanta are pending. Users at other locations desiring to use the overlay network will be backhauled to the 8 locations via AL2S.

For the forward looking 2018-2023 redesign, the Internet2 Board gave the network architects and planners leeway to define their investment strategy for the future. They would like to ask the community about the services they need delivered. They intend to be as broad as possible in serving the community of users.

Internet2 is working with the NAOP PAG subcommittee to define their new approach. A community workshop has been recommended. The upcoming September Internet2 Miami Technical Exchange will offer an opportunity to initiate exchanges with the user community. Internet2 is also extending outreach to individual entities including RONS, NRENs, Campus CIOs, researchers, vendors, federal agencies, and others.

For the full briefing, please see:

https://www.nitrd.gov/nitrdgroups/index.php?title=JET_Meetings_2016 under the July 2016 meeting

Network & IX Round tables

CAAREN: Andrew Gallo

CAAREN is upgrading their Ashland MPLS to 10G. They are using Melanox SN2700 switches for aggregation.

ESnet: Nick Buraglio

Inder Monga has been appointed the new Director of ESnet. ESnet is finalizing hiring new network engineers. They are hiring a group lead for the engineering team.

The ESnet Alcatel routers are being upgraded across the ESnet backbone. ESnet is in the middle of finalizing plans in support of the Office of Veterans Affairs to move genomics data from VA sources to Oak Ridge and other DOE labs.

ESnet is evaluating alternatives for the ESnet 6 architecture. One of the alternatives being considered uses SDN.

Internet2: Bill Lytle

Internet2 turned up 2 x 10G circuits in support of the European Space Agency under an agreement specifying performance, latency, and management. These are in support of NOAA↔ESA traffic. Internet2 will complete SLAs over the next year for incident management and network performance.

NASA networking: Mark Foster

DHS is doing their surveys.

3ROX: Michael Lambert

3ROX is in preliminary discussions to provide fiber in West Virginia

U.S. Ignite: Glenn Ricart

U.S. Ignite held their annual meeting in June in Austin, Texas. The meeting was supported by a 10G link for demonstrations. The meeting was held jointly with the Global Cities Challenge and Smart Cities Innovation Summit. NSF, in coordination with OSTP, NTIA, and NIST announced a new wireless initiative, Platforms for Advanced Wireless Research (PAWR) in cooperation with corporations and cities to advance next generation wireless capabilities. The industry consortium with U.S. Ignite has 18 corporate members and 3 telecoms members. There are public/private partnerships in 4 cities to provide wireless research and testbed platforms. The FCC recently released significant spectrum for wireless technology. Please see:

<https://www.nsf.gov/pubs/2016/nsf16585/nsf16585.htm>

and

<https://www.us-ignite.org/wireless/>

University of Utah: Joe Breen

The University of Utah is working to implement the networking for SC16.

University of Alaska: Shawn Armstrong

The University of Alaska is implementing an upstream upgrade from 1.2G to 10G. They are planning complementary in-state upgrades.

Exchange Points

Ames Internet Exchange: Mark Foster

The Ames Exchange is implementing a small number of upgrades. They are close to implementing a 100G link between Sunnyvale and PacWave after which the Ames Exchange will have a 100G capability.

StarLight: Joe Mambretti (via e-mail)

StarLight is engaged in preparing for multiple national and international 100 Gbps demonstrations for SC16, as well as multiple demonstrations for new techniques in using advanced SDN and SDX architecture and technologies for data intensive science.

NCO Report: Grant Miller

The Large Scale Networking Working Group (LSN) is expected to hold their Annual Planning Meeting in October, before the scheduled JET meeting. Given that the September JET meeting will be held in conjunction with the September Internet2 Technical Exchange meeting in Miami, the JET should start its planning for input to the LSN during the month of August.

AI: Grant Miller will send the JET a summary of their 2016 accomplishments and a preliminary list of potential JET topics for 2017.

Meetings of Interest:

July 31 - August 5 [APAN42](#), Hong Kong

September 25-28 [TechX](#), Miami, FL

September 29-30 [GLIF16](#), Miami, FL

October 17-19 [CANS2016](#), Houston, TX

October 17-19	NANOG68 , Dallas, TX
October 18-21	ESCC/Quilt/NSF Pls , Philadelphia, PA
October 20-21	ARIN 38 , Dallas, TX
November 13-18	IETF 97 , Seoul, South Korea
November 13-18	SC16 , Salt Lake City, UT
November 22-23	CANARIE National Summit 2016 , Montreal, QC
February 6-8, 2017	NANOG68 , Washington, DC

Next JET Meeting:

August 16	12:00-2:00 EDT, NSF
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Planning for future JET meetings:

September 25-28	JET at TechX, Miami, FL
November 13-18	JET at SC16, Salt Lake City, UT